

Characterization Well R-25:

Location: TA-16, South of Canon de Valle

NAD 83 Survey coordinates (brass marker in NW corner of cement pad):
x: 1615178.42 E y: 1764060.50 N
z: 7519.7 ft asl

Drilling: solid stem auger and fluid-assist air rotary reverse circulation with casing advance
Start date: 7/22/98
End date: 2/24/99

Borehole drilled to 1942 ft

Data collection:

Hydrologic properties:
Field Hydraulic Testing: Inconclusive tests.
Matric Potential/Moisture Content (105)
Hydrologic package (5)

Cores/cuttings submitted for geochemical and contaminant characterization: (13) and Anion/Isotope Profile Samples (30)

Groundwater samples submitted for geochem and cont. characterization: (14)

Geologic properties:
Mineralogy, petrography, and chemistry (30)

Borehole logs:

Lithologic (0-1942 ft)
Video (LANL tool) 580-863 ft, 1175-1180 ft, and 1462-1472 ft open borehole
Schlumberger Logs (0-1934.7 ft cased well): Compensated Neutron, Spectral Gamma, Multi-Finger Caliper, hole deviation
Cement Bond Log, and Ultrasonic Imager.
LANL Log: Natural gamma. (0-575', 0-980', and 0-1942' cased well)

Contaminants Detected in Borehole Samples:
RDX, HMX, TNT, 2 amino 4,6 dinitrotoluene, and 4 amino 2,6 dinitrotoluene

Well construction:

Drilling Completed: 2/24/99
Contract Geophysics: 4/21/99 & 2/10/00
Well Constructed: 3/3/99-5/25/99
Well Developed: 12/6/99-12/13/99, 1/3/00-2/1/00, 4/14/00-4/30/00, 5/4/00-5/8/00, 9/13/00-9/25/00
Westbay Installed: 9/26/00-9/28/00

Casing: 5.625-in O.D. stainless steel with flush threaded couplers.

Number of Screens: 9

5.0-in I.D. flush-threaded s.s.;
0.010-in slot

Screen (perforated pipe interval):

Screen #1 - 737.6 ft to 758.4 ft
Screen #2 - 882.6 ft to 893.4 ft
Screen #3 - 1054.6 ft to 1064.6 ft (damaged)
Screen #4 - 1184.6 ft to 1194.6 ft
Screen #5 - 1294.7 ft to 1304.7 ft
Screen #6 - 1404.7 ft to 1414.7 ft
Screen #7 - 1604.7 ft to 1614.7 ft
Screen #8 - 1794.7 ft to 1804.7 ft
Screen #9 - 1894.7 ft to 1904.7 ft (detached)
Screen #9b - 1871.5 ft to 1875.0 ft

Well development consisted of brushing, bailing, and pumping each screen; and bailing and pumping the sump. Pump development was conducted with a single packer inflated above each targeted screen.

Elevation
(feet asl)

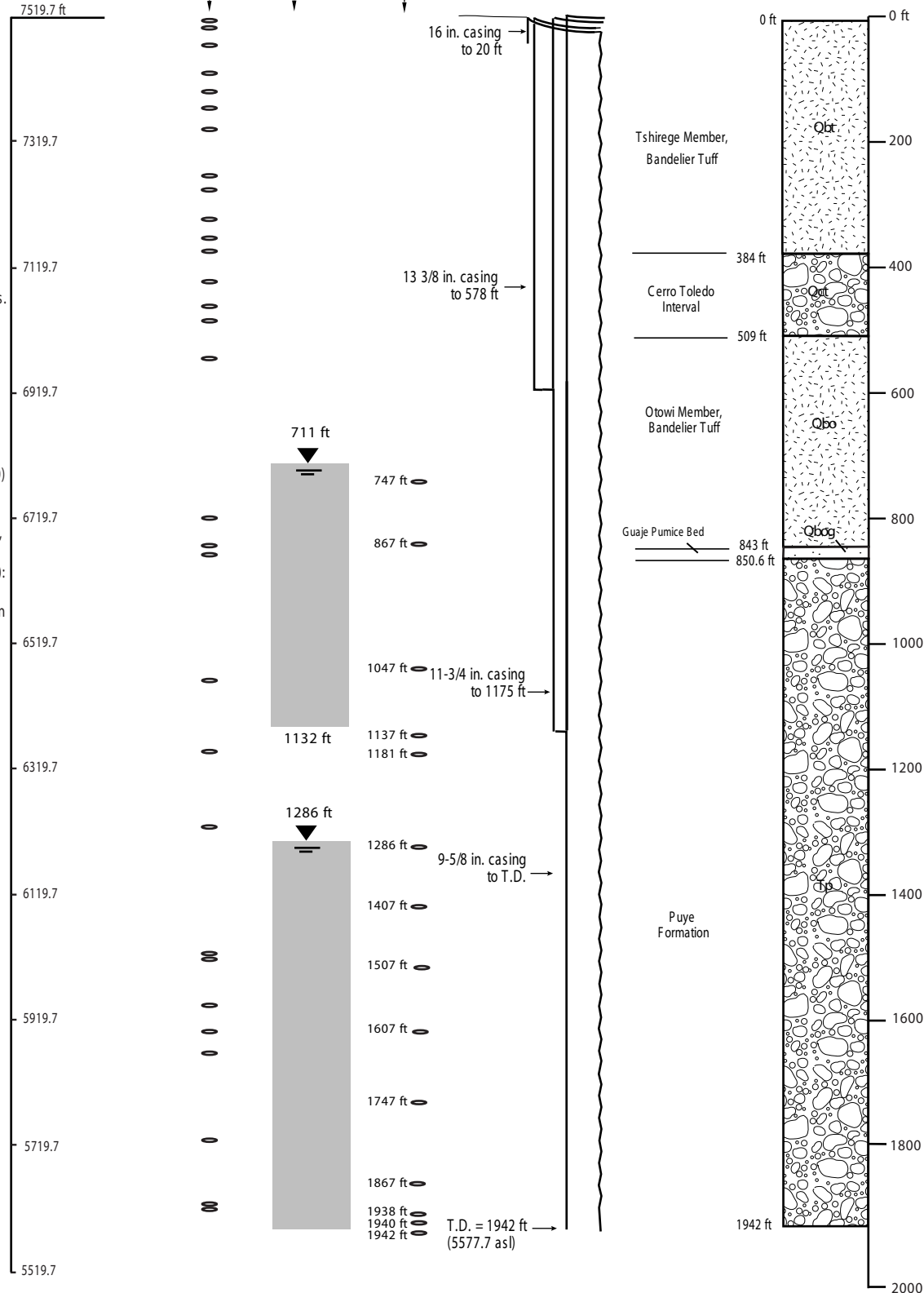
Geologic Char.
Samples

Groundwater
Occurrences

Borehole
Groundwater
Samples

Borehole
configuration
at T.D.

Stratigraphy
encountered



Groundwater occurrence was determined by recognition of first water produced while drilling. Static water levels were determined after the borehole was rested.

Geologic contacts determined by examination of cuttings, core, and geophysics.

Construction, stratigraphic, and hydrologic information for Hydrogeologic Workplan characterization well R-25.